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EXAMINER	
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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 09/708,782
Filing Date: November 08, 2000
Appellant(s): LI ET AL.

Bruce E. Garlick
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 12/20/04.

(1) Real Party in Interest

A statement identifying the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

A statement identifying the related appeals and interferences, which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) Status of Claims

The statement of the status of the claims contained in the brief is correct.

(4) Status of Amendments After Final

No amendment after final has been filed.

(5) Summary of Invention

The summary of invention contained in the brief is correct.

(6) Issues

The appellant's statement of the issues in the brief is correct.

(7) Grouping of Claims

The rejection of claims 1-46 stand or fall together because appellant's brief does not include a statement that this grouping of claims does not stand or fall together and reasons in support thereof. See 37 CFR 1.192(c)(7).

(8) Claims Appealed

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) Prior Art of Record

6,507,567	Willars	1-2003
6,542,739	Garner	4-2003
6,438,370	Einola	8-2002

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-29,42-44, rejected under 35 U.S.C. 103(a) as being unpatentable over Willars [US 6,507,567] in view of Garner [US 6,542,739].

Regarding claims 1,4,6,9,11,12, Willars discloses a method of efficient handling of connections in a mobile communications network.

Willars further discloses a method of receiving data packet from a packet data network, the data packet directed towards a mobile station serviced by the radio access network (RAN) and including a packet service quality level indicator (see col. 2, lines 13-65).

Willars further discloses a method of mapping the service quality level indicator to a corresponding set of RAN resources (see col. 2, line 54-col. 3, line 16).

Willars further discloses a method of allocating the corresponding set of RAN resources to service the transmission of the data packet to the mobile station and finally forwarding the data packet to the mobile station (see col. 2, line 54-col. 3, line 16). See also see Fig. 3

Willars however does not disclose a method of indicating the partial allocation of RAN resources and further does not indicate the full allocation of RAN resources.
Garner, in the same field of invention, teaches a method of indicating the partial allocation of RAN resources and further indicates the full allocation of RAN resources. See col. 78, lines 52-56.
Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to provide the teachings of Garner to Willars in order to permit the data channels to be optimally utilized.

Regarding claims 2,5,10, Willars further discloses a method of partial allocation of RAN resources and remarking the data with a new packet service quality indicator (see col. 3, lines 17-60, col. 10, lines 36-49).

Regarding claim 3,7,13, Willars discloses a method of receiving another packet data directed towards the mobile station that includes the packet service quality level indicator and remarking the data packet with the new packet service quality level indicator (see col. 3, lines 17-60, col. 9, line 61 – col. 10, line 49).

Regarding claim 8, Willars further discloses a method of notifying a packet data-servicing node (GPRS node in Fig. 1) of a packet service quality level corresponding to an allocated set of RAN resources. (see col. 1, lines 14-39).

Regarding claims 14 and 42, Willars further discloses a packet data service node/PDSN (GPRS node in Fig. 1) comprising of a first interface that interfaces PDSN to the packet network/internet (see Fig. 1), and a second interface that interfaces the PDSN to the RAN.

Willars further discloses a method of receiving data packet from a packet data network, the data packet directed towards a mobile station serviced by the radio access network (RAN) and including a packet service quality level indicator (see col. 2, lines 13-65).

Willars further discloses a method of mapping the service quality level indicator to a corresponding set of RAN resources (see col. 2, line 54-col. 3, line 16).

Willars further discloses a method of allocating the corresponding set of RAN resources to service the transmission of the data packet to the mobile station and finally forwarding the data packet to the mobile station (See Figs. 1,3, see col. 2, line 54-col. 3, line 16).

Willars however does not explicitly show the PDSN to comprise of a processor coupled to a processor bus and a memory coupled to the processor via the processor bus.

The examiner takes official notice that it is well known in the art for the GPRS node to comprise of a processor and a memory coupled to the processor.

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made for the GPRS node in Fig 1 to comprise of these elements namely the

processor and the memory coupled to it in order to map the service quality level indicator to corresponding set of RAN resources and allocate the said set of resources for transmitting the data packet to the mobile station as discussed in col. 2, line 38 – col. 3, line 16.

Further, Willars does not disclose a method of indicating the partial allocation of RAN resources and further does not indicate the full allocation of RAN resources.
Garner, in the same field of invention, teaches a method of indicating the partial allocation of RAN resources and further indicates the full allocation of RAN resources. See col. 78, lines 52-56.

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to provide the teachings of Garner to Willars in order to permit the data channels to be optimally utilized

Regarding claim 15, Willars further discloses a method of partial allocation of RAN resources and remarking the data with a new packet service quality indicator (see col. 3, lines 17-60, col. 10, lines 36-49).

Regarding claim 16, Willars discloses a method of receiving another packet data directed towards the mobile station that includes the packet service quality level indicator and remarking the data packet with the new packet service quality level indicator (see col. 3, lines 17-60, col. 9, line 61 – col. 10, line 49).

Regarding claims 17,19, Willars further discloses a method of receiving data packet from a packet data network, the data packet directed towards a mobile station serviced by the radio

access network (RAN) and including a packet service quality level indicator (see col. 2, lines 13-65).

Willars further discloses a method of mapping the service quality level indicator to a corresponding set of RAN resources (see col. 2, line 54-col. 3, line 16).

Regarding claim 18, Willars discloses a method of receiving another packet data directed towards the mobile station that includes the packet service quality level indicator and remarking the data packet with the new packet service quality level indicator, the new packet service quality level indicator corresponding to the partial set of RAN resources that have been allocated to the mobile station (see col. 3, lines 17-60, col. 9, line 61 – col. 10, line 49).

Regarding claims 20,22-24 and 43, Willars further discloses a base station controller (RNC in Fig.1) comprising of a first interface that interfaces the RNC to PDSN (GPRS node in Fig. 1), and a second interface that interfaces the BSC to the remaining portions of RAN. See Fig. 1. Willars further discloses a processor in the RNC (SEE Fig. 9) to perform the following:

-a method of receiving data packet from a packet data network, the data packet directed towards a mobile station serviced by the radio access network (RAN) and including a packet service quality level indicator (see col. 2, lines 13-65).

-a method of mapping the service quality level indicator to a corresponding set of RAN resources (see col. 2, line 54-col. 3, line 16).

-a method of allocating the corresponding set of RAN resources to service the transmission of the data packet to the mobile station and finally forwarding the data packet to the mobile station (see col. 2, line 54-col. 3, line 16).

Also see Figs. 1,3.

Willars however does not explicitly show a memory coupled to the processor via the processor bus.

The examiner takes official notice that it is well known in the art for the RNC to comprise of a processor and a memory coupled to the processor bus.

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made for the RNC in Fig 1 to comprise of the memory coupled to the processor in order to map the service quality level indicator to corresponding set of RAN resources and allocate the said set of resources for transmitting the data packet to the mobile station as discussed in col. 2, line 38 – col. 3, line 16.

Regarding claim 21, Willars discloses a method of receiving another packet data directed towards the mobile station that includes the packet service quality level indicator and remarking the data packet with the new packet service quality level indicator (see col. 3, lines 17-60, col. 9, line 61 – col. 10, line 49).

Regarding claims 25,27-29 and 44, Willars further discloses a packet control function (packet handler 50 in Fig.3) in the base station controller (RNC in Fig.1) comprising of a first interface that interfaces the RNC to PDSN (GPRS node in Fig. 1), and a second interface that

interfaces the BSC to the remaining portions of RAN. See Fig. 1. Willars further discloses a processor in the RNC (See Fig. 9) to perform the following:

-a method of receiving data packet from a packet data network, the data packet directed towards a mobile station serviced by the radio access network (RAN) and including a packet service quality level indicator (see col. 2, lines 13-65).

-a method of mapping the service quality level indicator to a corresponding set of RAN resources (see col. 2, line 54-col. 3, line 16).

-a method of allocating the corresponding set of RAN resources to service the transmission of the data packet to the mobile station and finally forwarding the data packet to the mobile station (see col. 2, line 54-col. 3, line 16).

Willars however does not explicitly show a memory coupled to the processor via the processor bus.

The examiner takes official notice that it is well known in the art for the RNC to comprise of a processor and a memory coupled to the processor bus.

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made for the RNC in Fig 1 to comprise of the memory coupled to the processor in order to map the service quality level indicator to corresponding set of RAN resources and allocate the said set of resources for transmitting the data packet to the mobile station as discussed in col. 2, line 38 – col. 3, line 16.

Regarding claim 26, Willars discloses a method of receiving another packet data directed towards the mobile station that includes the packet service quality level indicator and remarking

the data packet with the new packet service quality level indicator (see col. 3, lines 17-60, col. 9, line 61 – col. 10, line 49).

1. Claims 30-41,45 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Willars [US 6,507,567] and Garner [US 6,542,739] in view of Einola [US 6,438,370].

Regarding claim 30-41,45 and 46, Willars as treated in claims 20 and 25 discloses all the limitations as claimed. However, Willars does not disclose a method of indicating the partial allocation of RAN resources and further does not indicate the full allocation of RAN resources. Garner, in the same field of invention, teaches a method of indicating the partial allocation of RAN resources and further indicates the full allocation of RAN resources. See col. 78, lines 52-56.

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to provide the teachings of Garner to Willars in order to permit the data channels to be optimally utilized

Further Willars does not disclose a method where the processor causes the BSC/PCF to indicate to the PDSN the successful/unsuccessful allocation of resources.

Einola teaches a method where BSC indicates to the SGSN/PDSN the successful allocation of resources. See col. 11, lines 35-46.

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to include the above teachings of Einola to Willars in order that the SGSN/PDSN is aware of the available resources for further allocation process and for other data packets.

Response to Arguments

The appellant's main argument is that the equivalencing of the teachings of the secondary reference Garner wit the limitations of independent claims 1,14,20,25,30,36,42- 46 i.e. "a method of indicating the partial allocation of RAN resources and further indicates the full allocation of RAN resources" is incorrect.

In response to the appellant's argument regarding the independent claims 1,14,20,25,30,36,42- 46 the examiner disagrees because the primary reference Willars and the secondary reference Garner are analogous art i.e. channel allocation environment. Though the frequency band of the satellite communications and cellular communications are different, they are both however wireless communication technologies, the frequency bands of which are assigned and regulated by the FCC. In this particular invention, the secondary reference Garner is relied upon for the particular teaching of indicating to the network the type of resources allocated whether it is partial or full allocation. This teaching is combined with Willars in order to give more information to the user who has requested the resources from the network.

Further, the appellant's argues that the Willars reference fails to disclose a method where when the packet service quality indicator does not correspond to the RAN service quality indicator, remarking the data packet with a new packet quality indicator corresponding to the RAN service quality level indicator.

The examiner disagrees and draws attention to the Willars reference where the user is requesting to transmit data is initially assigned a radio bearer thus mapping the resource allocation to service quality indicator and at a future time when the user initiates a speech call, then an

additional resources are allocated thus remarking the new packet with the corresponding RAN service quality level indicator. See col. 3, lines 17-60, col. 9, line 61 – col. 10, line 49.

Thus the claimed limitations still reads on the cited references.

Therefore the rejections of the claims as discussed in the office action mailed 7/12/2004 and as discussed in this office action are considered proper.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Sujatha Sharma

Examiner

Art Unit 2684

SS
February 17, 2005

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